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September 26, 2016

Commissioners
Los Angeles County Fish and Game Commission
500 West Temple Street, Room B-50
Los Angeles, CA 90012

Re: RCDSMM Benthic Macroinvertebrate (BMI) Identification Lab

EXECUTIVE OFFICER
Clark Stevens

Dear Commissioners,
Since receiving the BMI Identification Lab funding we have used our new equipment on a number of projects related to measuring the health and biodiversity of Santa Monica Mountain streams.

With funds allocated we ordered the following equipment:

3.5X-90X Stereo Zoom Microscope w Dual Halogen Lights + 3MP Camera	\$550.00
Powerful LED Dual Goose-neck Microscope Illuminator Light	\$140.00
12V 15W Halogen Microscope Bulb	\$10.00
Tax	\$56.00
Storage Containers and shipping	\$85.00
Total expense	\$841.00

The high powered scope has enabled us to perform the standard taxonomic effort, identifying BMI to genus, as prescribed by the Southwest Association of Freshwater Invertebrate Taxonomists and required for local and state bio-assessment indices. The light has improved visibility of our lower-powered scopes. One of our greatest challenges in the lab was managing specimen vials from over 10 years of samples which take up a lot of space. Our new storage containers maximize space in our small lab and keep us organized. This has been a huge improvement!

The new equipment was especially helpful during 'Bug Week' in July 2016, when five high school students were introduced to benthic macroinvertebrate monitoring and identification, and worked in our lab for five days assisting in processing samples from the Topanga Creek amphibian surveys and drift net/trout food availability study. They assisted our local AmeriCorps Watershed Steward members who also helped with this effort. The results from these data analysis are shared with CA State Parks and CDFW in different reports. The camera also allowed us to document some of the local biodiversity and share high quality photos with the public. This will enable us to publish a brief article *Meet Euclichadidae, the Forest Stream Beetle* in a local paper to raise awareness of the amazing diversity of

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freshwater invertebrates and the link to water quality in the watershed. This species is a rare find in our local creeks and as such important to document.

Thank you for your continued support of our efforts to keep the water healthy and fish happy. Attached are photos of the equipment in place, as well as some of the critters we are finding.

Sincerely,

Elizabeth Montgomery
Field Biologist, Resource Conservation District SMM

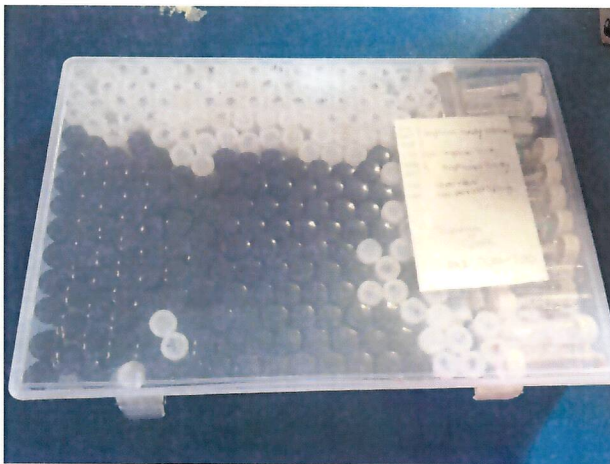


Figure 1-2. New storage container for specimens and high-powered scope with digital camera and illuminator

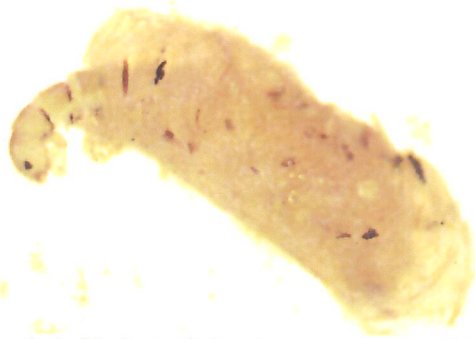


Figure 3-4. *Hydroptilidae* (purse-case caddisfly) and *Lepidostoma* (little brown sedge) larva from Topanga Creek collected 4.28.16 and Tufa Creek 6.16.16 (photo taken with new camera)



Figure 5. *Eulichadidae** (forest stream beetle) larva and adult collected from Topanga Creek and *Lepidostoma* (little brown sedge) larva from Topanga Creek collected 4.28.16 (photo taken with new camera)

* *Eulichadidae* is thought to be one of the least-known families of beetle globally.